

0570  
07/6

#5

ENTERED

See p. 6



OIPE

RAW SEQUENCE LISTING

DATE: 07/18/2002

PATENT APPLICATION: US/10/068,564

TIME: 15:08:56

Input Set : A:\434c2.app

Output Set: N:\CRF3\07182002\J068564.raw

3 <110> APPLICANT: Alnemri, Emad S.  
 4 Fernandez-Alnemri, Teresa  
 6 <120> TITLE OF INVENTION: CASPASE-14, AN APOTOTIC PROTEASE, NUCLEIC ACID ENCODING  
 7 AND METHODS OF USE  
 9 <130> FILE REFERENCE: 480140.434C2  
 11 <140> CURRENT APPLICATION NUMBER: US 10/068,564  
 12 <141> CURRENT FILING DATE: 2002-02-05  
 14 <160> NUMBER OF SEQ ID NOS: 78  
 16 <170> SOFTWARE: PatentIn Ver. 2.0  
 18 <210> SEQ ID NO: 1  
 19 <211> LENGTH: 850  
 20 <212> TYPE: DNA  
 21 <213> ORGANISM: Mus musculus  
 23 <220> FEATURE:  
 24 <221> NAME/KEY: modified\_base  
 25 <222> LOCATION: (537)  
 26 <223> OTHER INFORMATION: Where n is Adenine, Cytosine, Guanine or Thymine  
 28 <400> SEQUENCE: 1  
 29 cacgcgtccg cccacgcgtc cggtagagaca gagggcaaac aaaggtgctg aaagccagac 60  
 30 atggagtcag agatgagtga tcctcagcca ttgcaggagg aaagatatga tatgtcaggt 120  
 31 gcccgccttg cccgtgacgt gtgtgtcacc aaagcccggg agggttccga ggtagacatg 180  
 32 gagggccctgg aactgacgtt ccgttacctg aaatttgaaa gcaccatgaa gagggatccc 240  
 33 accgcccagc aatttctgga agagttggat gaatttcagc agaccataga taattgggaa 300  
 34 gagcctgtca gctgtgcctt tgtggtactc atggcacatg gtgaggaagg cctcctcaag 360  
 35 ggagaagatg agaagatggt cagactagaa gacctttttg aagtcttgaa caacaagaac 420  
 36 tgcaaggccc tgagaggcaa gccaaagggtg tacatcatcc aggctttagt aggagagcac 480  
 W--> 37 agagaccccc gtgaggaact acgtggaaaat gaggaactag gtggagatga ggaactnggt 540  
 38 ggagatgagg ttgtgtgtgt caagaacaac ccccaaagta tcccaaccta tacggatacc 600  
 39 ctccacatct actccacggt agaggggtac ctctcctata gacatgacga gaaaggctct 660  
 40 ggcttcatcc agaccctgac ggatgtgttc attcataaaa aaggatccat cttagaactg 720  
 41 acagaagaga tcaccgcgact tatggcaaac acggaggtga tgcaggaagg aaaaccaagg 780  
 42 aaagtgaacc ctgaagtcca aagcaccctc cggaagaagc tctatttgca ataaaagaga 840  
 43 gggcagggat 850  
 45 <210> SEQ ID NO: 2  
 46 <211> LENGTH: 260  
 47 <212> TYPE: PRT  
 48 <213> ORGANISM: Mus musculus  
 50 <400> SEQUENCE: 2  
 51 Lys Pro Asp Met Glu Ser Glu Met Ser Asp Pro Gln Pro Leu Gln Glu  
 52 -3 -1 1 5 10  
 54 Glu Arg Tyr Asp Met Ser Gly Ala Arg Leu Ala Leu Thr Leu Cys Val  
 55 15 20 25  
 57 Thr Lys Ala Arg Glu Gly Ser Glu Val Asp Met Glu Ala Leu Glu Arg

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/068,564

DATE: 07/18/2002

TIME: 15:08:57

Input Set : A:\434c2.app

Output Set: N:\CRF3\07182002\J068564.raw

```

58 30          35          40          45
60 Met Phe Arg Tyr Leu Lys Phe Glu Ser Thr Met Lys Arg Asp Pro Thr
61          50          55          60
63 Ala Gln Gln Phe Leu Glu Glu Leu Asp Glu Phe Gln Gln Thr Ile Asp
64          65          70          75
66 Asn Trp Glu Glu Pro Val Ser Cys Ala Phe Val Val Leu Met Ala His
67          80          85          90
69 Gly Glu Glu Gly Leu Leu Lys Gly Glu Asp Glu Lys Met Val Arg Leu
70          95          100          105
72 Glu Asp Leu Phe Glu Val Leu Asn Asn Lys Asn Cys Lys Ala Leu Arg
73 110          115          120          125
75 Gly Lys Pro Lys Val Tyr Ile Ile Gln Ala Cys Arg Gly Glu His Arg
76          130          135          140
78 Asp Pro Gly Glu Glu Leu Arg Gly Asn Glu Glu Leu Gly Gly Asp Glu
79          145          150          155
81 Glu Leu Gly Gly Asp Glu Val Ala Val Leu Lys Asn Asn Pro Gln Ser
82          160          165          170
84 Ile Pro Thr Tyr Thr Asp Thr Leu His Ile Tyr Ser Thr Val Glu Gly
85          175          180          185
87 Tyr Leu Ser Tyr Arg His Asp Glu Lys Gly Ser Gly Phe Ile Gln Thr
88 190          195          200          205
90 Leu Thr Asp Val Phe Ile His Lys Lys Gly Ser Ile Leu Glu Leu Thr
91          210          215          220
93 Glu Glu Ile Thr Arg Leu Met Ala Asn Thr Glu Val Met Gln Glu Gly
94          225          230          235
96 Lys Pro Arg Lys Val Asn Pro Glu Val Gln Ser Thr Leu Arg Lys Lys
97          240          245          250
99 Leu Tyr Leu Gln
100          255

```

```

102 <210> SEQ ID NO: 3
103 <211> LENGTH: 5
104 <212> TYPE: PRT
105 <213> ORGANISM: Mus musculus
107 <400> SEQUENCE: 3

```

```

108 Gln Ala Cys Arg Gly
109 1 5

```

```

112 <210> SEQ ID NO: 4
113 <211> LENGTH: 777
114 <212> TYPE: DNA
115 <213> ORGANISM: Homo sapien
117 <220> FEATURE:
118 <221> NAME/KEY: CDS
119 <222> LOCATION: (49)...(774)
121 <400> SEQUENCE: 4

```

```

122 aggatcagac aaggggtgctg agagccggga ctcacaacca aaggagaa atg agc aat 57
123                                     Met Ser Asn
124                                     1
126 ccg cgg tct ttg gaa gag gag aaa tat gat atg tca ggt gcc gcg ctg 105
127 Pro Arg Ser Leu Glu Glu Glu Lys Tyr Asp Met Ser Gly Ala Ala Leu

```

## RAW SEQUENCE LISTING

DATE: 07/18/2002

PATENT APPLICATION: US/10/068,564

TIME: 15:08:57

Input Set : A:\434c2.app

Output Set: N:\CRF3\07182002\J068564.raw

```

128      5      10      15
130 gcc cta ata ctg tgt gtc acc aaa gcc cgg gaa ggt tcc gaa gaa gac 153
131 Ala Leu Ile Leu Cys Val Thr Lys Ala Arg Glu Gly Ser Glu Glu Asp
132 20      25      30      35
134 ctg gat gct ctg gaa cac atg ttt cgg cag ctg aga ttc gaa agc acc 201
135 Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe Glu Ser Thr
136      40      45      50
138 atg aaa aga gac ccc act gcc gag caa ttc cag gaa gag ctg gaa aaa 249
139 Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu Leu Glu Lys
140      55      60      65
142 ttc cag cag gcc atc gat tcc cgg gaa gat ccc gtc agt tgt gcc ttc 297
143 Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser Cys Ala Phe
144      70      75      80
146 gtg gta ctc atg gct cac ggg agg gaa ggc ttc ctc aag gga gaa gat 345
147 Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys Gly Glu Asp
148      85      90      95
150 ggg gag atg gtc aag ctg gag aat ctc ttc gag gcc ctg aac aac aag 393
151 Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu Asn Asn Lys
152 100      105      110      115
154 aac tgc cag gcc ctg cga gct aag ccc aag gtg tac atc ata cag gcc 441
155 Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile Ile Gln Ala
156      120      125      130
158 tgt cga gga gaa caa agg gac ccc ggt gaa aca gta ggt gga gat gag 489
159 Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly Gly Asp Glu
160      135      140      145
162 att gtg atg gtc atc aaa gac agc cca caa acc atc cca aca tac aca 537
163 Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro Thr Tyr Thr
164      150      155      160
166 gat gcc ttg cac gtt tat tcc acg gta gag gga tac atc gcc tac cga 585
167 Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Tyr Ile Ala Tyr Arg
168      165      170      175
170 cat gat cag aaa ggc tca tgc ttt atc cag acc ctg gtg gat gtg ttc 633
171 His Asp Gln Lys Gly Ser Cys Phe Ile Gln Thr Leu Val Asp Val Phe
172 180      185      190      195
174 acg aag agg aaa gga cat atc ttg gaa ctt ctg aca gag gtg acc cgg 681
175 Thr Lys Arg Lys Gly His Ile Leu Glu Leu Leu Thr Glu Val Thr Arg
176      200      205      210
178 cgg atg gca gaa gca gag ctg gtt caa gaa gga aaa gca agg aaa acg 729
179 Arg Met Ala Glu Ala Glu Leu Val Gln Glu Gly Lys Ala Arg Lys Thr
180      215      220      225
182 aac cct gaa atc caa agc acc ctc cgg aaa cgg ctg tat ctg cag 774
183 Asn Pro Glu Ile Gln Ser Thr Leu Arg Lys Arg Leu Tyr Leu Gln
184      230      235      240
186 tag 777
188 <210> SEQ ID NO: 5
189 <211> LENGTH: 242
190 <212> TYPE: PRT
191 <213> ORGANISM: Homo sapien
193 <400> SEQUENCE: 5

```

## RAW SEQUENCE LISTING

DATE: 07/18/2002

PATENT APPLICATION: US/10/068,564

TIME: 15:08:57

Input Set : A:\434c2.app

Output Set: N:\CRF3\07182002\J068564.raw

```

194 Met Ser Asn Pro Arg Ser Leu Glu Glu Lys Tyr Asp Met Ser Gly
195 1 5 10 15
196 Ala Ala Leu Ala Leu Ile Leu Cys Val Thr Lys Ala Arg Glu Gly Ser
197 20 25 30
198 Glu Glu Asp Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe
199 35 40 45
200 Glu Ser Thr Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu
201 50 55 60
202 Leu Glu Lys Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser
203 65 70 75 80
204 Cys Ala Phe Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys
205 85 90 95
206 Gly Glu Asp Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu
207 100 105 110
208 Asn Asn Lys Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile
209 115 120 125
210 Ile Gln Ala Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly
211 130 135 140
212 Gly Asp Glu Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro
213 145 150 155 160
214 Thr Tyr Thr Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Tyr Ile
215 165 170 175
216 Ala Tyr Arg His Asp Gln Lys Gly Ser Cys Phe Ile Gln Thr Leu Val
217 180 185 190
218 Asp Val Phe Thr Lys Arg Lys Gly His Ile Leu Glu Leu Thr Glu
219 195 200 205
220 Val Thr Arg Arg Met Ala Glu Ala Glu Leu Val Gln Glu Gly Lys Ala
221 210 215 220
222 Arg Lys Thr Asn Pro Glu Ile Gln Ser Thr Leu Arg Lys Arg Leu Tyr
223 225 230 235 240
224 Leu Gln
227 <210> SEQ ID NO: 6
228 <211> LENGTH: 850
229 <212> TYPE: DNA
230 <213> ORGANISM: Homo sapien
232 <220> FEATURE:
233 <221> NAME/KEY: CDS
234 <222> LOCATION: (48)...(737)
236 <400> SEQUENCE: 6
237 aggatcagac aaggggtgctg agagccggac tcacaaccaa aggagaa atg agc aat 56
238 Met Ser Asn
239 1
241 ccg cgg tct ttg gaa gag gag aaa tat gat atg tca ggt gcc cgc ctg 104
242 Pro Arg Ser Leu Glu Glu Lys Tyr Asp Met Ser Gly Ala Arg Leu
243 5 10 15
245 gcc cta ata ctg tgt gtc acc aaa gcc cgg gaa ggt tcc gaa gaa gac 152
246 Ala Leu Ile Leu Cys Val Thr Lys Ala Arg Glu Gly Ser Glu Glu Asp
247 20 25 30 35
249 ctg gat gct ctg gaa cac atg ttt cgg cag ctg aga ttc gaa agc acc 200

```

## RAW SEQUENCE LISTING

DATE: 07/18/2002

PATENT APPLICATION: US/10/068,564

TIME: 15:08:57

Input Set : A:\434c2.app

Output Set: N:\CRF3\07182002\J068564.raw

```

250 Leu Asp Ala Leu Glu His Met Phe Arg Gln Leu Arg Phe Glu Ser Thr
251          40          45          50
253 atg aaa aga gac ccc act gcc gag caa ttc cag gaa gag ctg gaa aaa      248
254 Met Lys Arg Asp Pro Thr Ala Glu Gln Phe Gln Glu Glu Leu Glu Lys
255          55          60          65
257 ttc cag cag gcc atc gat tcc cgg gaa gat ccc gtc agt tgt gcc ttc      296
258 Phe Gln Gln Ala Ile Asp Ser Arg Glu Asp Pro Val Ser Cys Ala Phe
259          70          75          80
261 gtg gta ctc atg gct cac ggg agg gaa ggc ttc ctc aag gga gaa gat      344
262 Val Val Leu Met Ala His Gly Arg Glu Gly Phe Leu Lys Gly Glu Asp
263          85          90          95
265 ggg gag atg gtc aag ctg gag aat ctc ttc gag gcc ctg aac aac aag      392
266 Gly Glu Met Val Lys Leu Glu Asn Leu Phe Glu Ala Leu Asn Asn Lys
267 100          105          110          115
269 aac tgc cag gcc ctg cga gct aag ccc aag gtg tac atc ata cag gcc      440
270 Asn Cys Gln Ala Leu Arg Ala Lys Pro Lys Val Tyr Ile Ile Gln Ala
271          120          125          130
273 tgt cga gga gaa caa agg gac ccc ggt gaa aca gta ggt gga gat gag      488
274 Cys Arg Gly Glu Gln Arg Asp Pro Gly Glu Thr Val Gly Gly Asp Glu
275          135          140          145
277 att gtg atg gtc atc aaa gac agc cca caa acc atc cca aca tac aca      536
278 Ile Val Met Val Ile Lys Asp Ser Pro Gln Thr Ile Pro Thr Tyr Thr
279          150          155          160
281 gat gcc ttg cac gtt tat tcc acg gta gag gga ccc acg ccc ttc cag      584
282 Asp Ala Leu His Val Tyr Ser Thr Val Glu Gly Pro Thr Pro Phe Gln
283          165          170          175
285 gat ccc ctc tac cta ccc tct gaa gct ccc ccg aac cca cct ctc tgg      632
286 Asp Pro Leu Tyr Leu Pro Ser Glu Ala Pro Pro Asn Pro Pro Leu Trp
287 180          185          190          195
289 aat tcc cag gat aca tcg cct acc gac atg atc aga aag gct cat gct      680
290 Asn Ser Gln Asp Thr Ser Pro Thr Asp Met Ile Arg Lys Ala His Ala
291          200          205          210
293 tta tcc aga ccc tgg tgg atg tgt tca cga aga gga aag gac ata tct      728
294 Leu Ser Arg Pro Trp Trp Met Cys Ser Arg Arg Gly Lys Asp Ile Ser
295          215          220          225
297 tgg aac ttc tgacagaggt gacccggcgg atggcagaag cagagctggt      777
298 Trp Asn Phe
299          230
301 tcaagaagga aaagcaagga aaacgaaccc tgaaatccaa agcaccctcc ggaaacggct      837
302 gtatctgcag tag      850
304 <210> SEQ ID NO: 7
305 <211> LENGTH: 230
306 <212> TYPE: PRT
307 <213> ORGANISM: Homo sapien
309 <400> SEQUENCE: 7
310 Met Ser Asn Pro Arg Ser Leu Glu Glu Glu Lys Tyr Asp Met Ser Gly
311 1          5          10          15
312 Ala Arg Leu Ala Leu Ile Leu Cys Val Thr Lys Ala Arg Glu Gly Ser
313          20          25          30

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/068,564

DATE: 07/18/2002  
TIME: 15:08:58

Input Set : A:\434c2.app  
Output Set: N:\CRF3\07182002\J068564.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 537  
Seq#:76; N Pos. 537

VERIFICATION SUMMARY

DATE: 07/18/2002

PATENT APPLICATION: US/10/068,564

TIME: 15:08:58

Input Set : A:\434c2.app

Output Set: N:\CRF3\07182002\J068564.raw

L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:480

L:1642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:480